SECTION 1

Q 1	Business policy are playing important role. What factors are most important factors in terms of business policy for interconnecting two offices using internet. 　1- Addressing 　2- bandwidth 　3- privacy 　4- security 　5- WAN technology a). 1 & 2 b). 2 & 3 c). 3 & 4 d). 1,2,3 and 4	**2**
Q 2	Difference between packet-switched network and circuit-switched network? a). Circuit switching networks are resource hungry b). Packet switching networks are high latency c). Both d). None	**2**
Q 3	A company is considering updating the campus WAN connection. Which of the following are examples of the private WAN architecture? a). leased line b). Ethernet WAN c). Frame Relay d). All	**2**
Q 4	Match the following (Write the correct match string for 1 to 5 in order) 1.DWDM　　　　　　　i. Label based packet forwarding 2. ATM　　　　　　　j. microwave 3. ISDN　　　　　　　k. Circuit switching 4. MPLS　　　　　　　l. Asynchronous transfer 5. WiMAX　　　　　　m. Optical fiber a). ijlkm b). mklij	**2**

	c). mlkij	
	d). ijklm	
Q 5	What is the purpose of the generic routing encapsulation tunneling protocol? a). to provide packet level encryption of IP traffic between remote sites b). to manage the transportation of IP multicast and multiprotocol traffic between remote sites c). to support basic unencrypted IP tunneling using multivendor routers between remote sites d). to provide fixed flow-control mechanisms with IP tunneling between remote sites	**2**
Q 6	Pick the wrong statement. a). PAP - Password Authentication Protocol b). CHAP - Challenge Handshake Authentication Protocol c). PAP - Uses encrypted password d). CHAP – 3-Way Handshake	**2**
Q 7	Which protocol is **NOT** supported on Cisco devices for AAA communications. a). LLDP b). RADIUS c). TACACS d). All above are supported by AAA	**2**
Q 8	Match the following (Write the correct match string for 1 to 4 in order) 1.pap a. Enable chap on serial interface 2. chap b. Enables both and performs chap before pap 3. pap chap c. Enables both and performs pap before chap 4. chap pap d. Enable pap on serial interface a). abcd b). dacb c). dabc d). bacd	**2**
Q 9	Which of the following is **NOT** a class LCP frames? a). Link-discovery frames b). Link-establishment frames c). Link-maintenance frames d). Link-termination frames	**2**
Q 10	Which of the following is NOT correctly matched? a). DSL: providing high-speed connections over installed copper wires. b). ADSL: provides higher downstream bandwidth than upload bandwidth. c). SDSL: provides the same capacity in both directions. d). ALL correctly matched.	**2**
Q 11	Which of the following is NOT correct about PPPoE. a). creates a PPP tunnel over an Ethernet connection. b). **pppoe enable** interface configuration command is used to enable physical Ethernet interface. c). PPPoE can as it is used for optical fiber links. d). show pppoe session - displays information about currently active PPPoE sessions.	**2**
Q 12	Which of the following is NOT a type of VPN a). EMVPN b). Site to Site VPN	**2**

	c). Remote access VPN d). DMVPN	
Q 13	…………….. VPNs connect entire networks to each other. Generic Routing Encapsulation (GRE) is a ……., site-to-site VPN tunneling protocol. a). remote access, secure b). site-to-site, secure c). remote access, unsecure d). site-to-site, unsecure	**2**
Q 14	Which of the following is NOT an operating mode of SNORT a). Sniffer mode, b). Packet Logger mode c). Network Intrusion Detection System (NIDS) d). All the above are operating mode od SNORT	**2**
Q 15	Match the following 1. switchport mode access a. Enables port security on the interface. 2. switchport port-security b. max number of secure MAC addresses for the interface. 3. switchport port-security c. Sets the interface mode as access Violation 4. switchport port-security d. restrict or shutdown maximum value a).1-c 2-d 3-a 4-b b). 1-c 2-a 3-d 4-b c). 1-d 2-c 3-b 4-a d). 1-a 2-b 3-c 4-d	**2**
Q 16	Which is the secure way for remote access. a). SSH b). putty c). Telnet d). email	**2**
Q 17	Pick the wrong statement about ebgp protocols. a). BGP is used when an AS has connections to multiple autonomous systems. b). A misconfiguration of a BGP router could have negative effects throughout the Internet. c). BGP can be used when there is a limited understanding of BGP d). BGP configuration command : router bgp as-number	**2**
Q 18	What will be the correct ACE syntax? Permit all IP addresses in network 192.168.10.0/24 a). access-list 10 permit 192.168.10.0/24 b). access-list 10 permit 192.168.10.0 255.255.255.0 c). access-list 10 permit 192.168.10.0 0.0.0.255 d). None	**2**
Q 19	What will be the correct ACE syntax? SMTP traffic from subnet 192.168.11.0 going to subnet 192.168.10.0 is denied, but all other traffic is permitted. a). access-list 10 deny tcp 192.168.11.0 0.0.0.255 192.168.10.0 0.0.0.255 eq smtp	**2**

	b). access-list 10 permit tcp 192.168.11.0 0.0.0.255 192.168.10.0 0.0.0.255 eq smtp c). access-list 10 deny 192.168.11.0 0.0.0.255 192.168.10.0 0.0.0.255 eq smtp d). access-list 10 deny tcp 192.168.11.0 255.0.0.0 192.168.10.0 255.255.255.0 eq smtp	
Q 20	Calculate the wildcard mask corresponding to the subnet mask /27 a).0.0.0.255 b).0.0.0.27 c).0.0.0.32 d). 0.0.0.31	**2**
Q 21	Which of the following is **INCORRECTLY** defined? a). CPE: Consists of devices and inside wiring located on the enterprise edge connecting to a carrier b). DCE: Also called circuit-terminating equipment, the DCE consists of devices that put data on the local loop. The DCE primarily provides an interface to connect subscribers to a communication link on the WAN cloud c). DTE: The customer devices that pass the data from a customer network or host computer for transmission over the WAN. The DTE connects to the local loop through the DCE d). WAN: wireless area network connects devices through wireless network. It used Wifi and Bluetooth for communication.	**2**
Q 22	Pick the Incorrect Match a). Fog computing – Edge computing b). Cloud computing – Virtualization c). Iot – smart devices d). None	**2**
Q 23	Which of the following is INCORRECT about cloud computing? a). SaaS, PaaS and IaaS are service models of cloud computing. b). Public, private and hybrid are cloud deployment model. c). Type-1 hypervisor are also called hosted hypervisors. d). Type-2 are installed over and existing operating system.	**2**
Q 24	Match the following | 1. SDN	i.	Lies between Iot and Cloud
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2. NFV	ii.	Decouples the control plane and the data plane
3. Fog	iii.	Virtualization of networking devices and functionalities | a). 1-i 2-ii 3-iii b). 1-ii 2-iii 3-i c). 1-ii 2-i 3-iii d). 1-ii 2-i 3-ii	**2**
Q 25	Which statement is a characteristic of SNMP MIBs? a). The MIB organizes variables in a flat manner. b). The SNMP agent uses the SNMP manager to access information within the MIB. c). The NMS must have access to the MIB in order for SNMP to operate properly. d). The MIB structure for a given device includes only variables that are specific to that device or vendor.	**2**
Q 26	Match the following	**2**

	1.traffic policing	A. This determines the class of traffic to which frames belong.
	2.marking	B. Excess traffic is dropped when the traffic rate reaches a preconfigured maximum.
	3.traffic shaping	C.A value is added to a packet header
	4.classification	D. Excess traffic is retained in a queue and scheduled for later transmission over increments of time

a).1-A 2-B 3-C 4-D
b).1-D 2-C 3-B 4-A
c).1-D 2-C 3-A 4-B
d). 1-B 2-C 3-D 4-A

Q 27	Which of the following are useful in trouble shooting network? a). Topology diagram b). Network documentation c). Hardware tools d). All	**2**
Q 28	Which of the following statement is wrong? a). IP SLAs use generated traffic to measure network performance between two networking devices, multiple network locations, or across multiple network paths. b). A protocol analyzer decodes the various protocol layers in a recorded frame and presents it in an easy to use format. c). Syslog is a simple protocol used by an IP device known as a syslog client to send text-based log messages to another IP device known as the syslog server. d). None	**2**
Q 29	Which of the following is NOT true about the CDP protocol? a). CDP stands for cisco discovery protocol b). CDP can automatically discover other CDP-enabled devices c). Use the *no cdp enable interface* configuration command to globally disabled the CDP. d). All three are incorrect.	**2**
Q 30	VLAN attacks can be prevented by a). Disabling DTP b). Enabling port security c). Disable Unused port d). All	**2**
SECTION-2		
Q 31	"Software defined Network (SDN) is a new networking paradigm which decouples the control plane and the data plane of the router and put the control logic is kept at a centralized server known as the controller. SDN supports 3-layer architecture with application, control and forwarding layer. SDN are of three types device, controller and policy based. The network programmability is the feature of the network which provides a flexible and dynamic network which can be configure and control in the real time." Follow the above paragraph and answer the following. a). What benefits can be achieved by keeping the control logic separated from the forwarding logic. b). SDN supports network programmability. Justify with proper reasoning.	**10 [2.5* 4]**

	c). Describe the 3-layer architecture of Software defined network. d). Describe in brief the cisco APIC architecture. e). Differentiate SDN and NFV.	
Q 32	As a network administrator you have secure your intranet from the intruder. The LAN suffers different types of vulnerabilities. Discuss such vulnerabilities in the LAN. What type of attack that are possible on the LAN using these vulnerabilities? Discuss the solution present to mitigate these attacks.	**10**
Q 33	How queuing helps in prioritizing the traffic to maintain QoS. Discuss Weighted Fair Queuing (WFQ) and Class-Based Weighted Fair Queuing (WFQ) in detail. Differentiate between jitter and delay. How playout delay buffer helps to mitigate the problem of jitter.	**10 [1+6 +3]**
Q 34	a). NAT to provide the internet access when the host is using private IP. b). What are 3 cardinal rules of ACL. Discuss the steps to troubleshoot the access list configuration.	**10[5 +5]**
OR	Write short notes on the following 1.IPS/IDS 2.LCP/NCP 3.PAP/CHAP 4. SNORT	**10 [2.5* 4]**